

CLAIMS

1. An apparatus, including
a client device, including a means for making a request to a remote
server;
a proxy encoder, including software for identifying and manipulating
template information and sub-template information;
a memory coupled to said proxy encoder, said memory including
said template information and said sub-template information, and
a communication network coupled to said client device and said
proxy encoder.
2. An apparatus as in claim 1, including a decoder, wherein said
decoder includes a means for intercepting said requests.
3. An apparatus as in claim 2, wherein said decoder includes a
means for decompressing responses to said requests and integrating said responses
to said requests.
4. An apparatus as in claim 2, wherein said decoder is coupled
to said client device.

1 5. An apparatus as in claim 2, wherein said decoder is coupled
2 to a network element local to said client device, where said network element
3 includes one of the following: web browser, a firewall, a router or a proxy cache.
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5 6. An apparatus as in claim 1, wherein said proxy encoder
6 includes software for data compression.
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8 7. An apparatus as in claim 1, wherein said proxy encoder
9 includes software for comparing said templates and sub-templates in said memory
10 with other information obtained from said remote server.
11

12 8. An apparatus as in claim 1, including
13 a means for distinguishing between those documents that are sent
14 more efficiently using templates and sub-templates from those documents that are
15 sent more efficiently without the use of sub- templates;
16

17 a means for managing a hierarchy of sub-templates; and
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19 a means for assembling templates and sub-templates.
20

21 9. A method, including
22 redirecting a request for information from a client to a proxy server,
said proxy server including a memory comprised of template information and sub-
template information;

1 comparing information included in said memory with other
2 information from a remote server;

3 responding to said request by sending template information, sub-
4 template information and delta information.

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6 10. A method as in claim 9, wherein said step of redirecting is
7 performed by a decoder coupled to a user's browser.

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9 11. A method as in claim 9, wherein said step of redirecting is
10 performed by a remote server.

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12 12. A method as in claim 9, wherein said step of comparing is
13 performed by a proxy encoder.

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15 13. A method as in claim 9, wherein said step of comparing
16 information includes tagging said template information so as to identify a version
17 of said template information.

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19 14. A method in claim 9, wherein said step of comparing includes
20 tagging said sub-template information so as to identify a version of said sub-
21 template information.

1 15. A method as in claim 9, wherein said step of comparing
2 includes identifying a set of delta information
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4 16. A method as in claim 9, also including a step of compressing
5 and caching said template information.
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7 17. A method as in claim 9, also including a step of compressing
8 and caching said sub-template information.
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10 18. A method as in claim 9, wherein said step of responding to
11 said request is performed by said proxy encoder.
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13 19. A method as in claim 9, including a step of integrating said
14 template information, said sub-template information and said delta information.
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16 20. A method as in claim 19, wherein said step of integrating
17 includes decompressing said template information and said sub-template
18 information.
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20 21. A method as in claim 19, wherein said step of integrating is
21 performed by said proxy encoder.
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1 22. A method as in claim 19, wherein said step of integrating is
2 performed by said decoder.

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4 23. A method as in claim 9, including steps of
5 distinguishing between those documents that are sent more
6 efficiently using templates and sub-templates from those documents that are sent
7 more efficiently without the use of templates;
8 managing and retrieving sub-templates; and
9 assembling templates and sub-templates.

10
11 24. A method as in claim 23, wherein said step of distinguishing
12 includes
13 identifying common sub-strings,
14 classifying said common sub-strings,
15 checking the number of variations of said sub-strings; and
16 comparing said number to a number of said deltas.